



DEVELOPMENT OF PAI LEARNING MODEL BASED ON CHARACTER EDUCATION OF SMK 5 STUDENTS BANGGAI REGENCY

Hasna Koba'a¹, Amrah Kasim², Syamsuddin³, & Mujahid Damopolii⁴

^{1,4}Universitas Islam Negeri Sultan Amai, Gorontalo, Indonesia

^{2,3}Universitas Islam Negeri Alauddin Makassar, Indonesia

Correspondence Email: hasnakobaa2@gmail.com

ABSTRACT

This study aims to describe the level of need for developing learning models, designing prototypes, testing validity and practicality, and evaluating the effectiveness of the development of a PAI (Islamic Religious Education) Learning Model Based on Character Education for students at SMK 5 Luwuk Timur, Banggai Regency. The learning products developed in this study include a learning model book, a teacher's guide, and instructional materials (lesson plans and assessment instruments). This research adopts a developmental research design following the ADDIE approach (Analysis, Design, Development, Implementation, and Evaluation). A variety of instruments were used, including interviews, questionnaires, observations, document analysis, validation sheets, and test instruments. The research findings indicate the following: (1) The need for a PAI learning model based on character education at SMK 5 Luwuk Timur is evident, as teachers expressed a strong need for such a model to serve as a guideline in integrating character values—such as honesty, hard work, responsibility, and role modeling—into their teaching; (2) The validity test results from experts demonstrate that all aspects of the feasibility assessment of the PAI learning model fall within the "very valid" category. Similarly, the practicality test results confirm that the developed PAI learning model is highly practical, meeting the criteria for effective implementation in the classroom. Then, the implications of this study suggest that the PAI learning model based on character education aligns with the 2013 curriculum format. It is expected that teachers will integrate this model into Islamic Religious Education (PAI) instruction to effectively foster character education in students.

Keywords: Model; learning; education; character; students

1. INTRODUCTION

Education is one of the fundamental pillars that support the development of civilization. The existence and progress of a nation are largely determined by the character of its people. An

individual with a strong moral foundation can become a dignified and respected member of society, contributing to the overall integrity of their nation.¹ Establishing a society with strong character has long been a fundamental goal of Indonesia. This aligns with the functions of national education, as outlined in Law No. 20 of 2003 on the National Education System. The law states that national education functions to develop the potential of learners by fostering individuals who are faithful and pious to God Almighty, possess noble morals, maintain good health, are knowledgeable, capable, creative, independent, and responsible democratic citizens.² Then, education is a deliberate and structured effort to create a conducive learning environment, enabling students to develop their potential in multiple dimensions—spiritual, intellectual, and moral. It aims to instill religious faith, self-discipline, strong character, intelligence, and the skills necessary for both personal growth and societal contribution.

Moral education emphasizes the importance of sincere intentions and strong motivation in shaping one's behavior. Faith and piety are reinforced through religious practice and deep spiritual reflection, while noble morals encompass socially recognized virtues such as honesty, justice, and responsibility. Moral education ensures that students not only understand these values but also actively practice them in daily life. Furthermore, inner virtues such as patience, sincerity, and compassion are cultivated to strengthen an individual's moral foundation. Prominent Western scholars, such as Kilpatrick, Lickona, Brooks, and Goble, have echoed similar views to those voiced by Prophet Muhammad and Socrates, emphasizing that character development is an indispensable goal of education. Martin Luther King Jr. further reinforced this notion, stating that "Intelligence plus character—that is the true aim of education." This perspective highlights the inseparable link between academic excellence and moral integrity.

Islamic Religious Education (PAI) is considered one of the core subjects for instilling character values in students. Effective character education requires a well-designed curriculum that integrates intracurricular, co-curricular, and extracurricular activities. To achieve this, it is essential to develop comprehensive learning designs, including annual and semester programs, syllabi, lesson plans (RPP), instructional strategies, and supporting materials and media. These elements should be systematically conceptualized, planned, and implemented to ensure effective and efficient character education in schools. This research is driven by growing concerns about the moral and ethical crisis currently affecting society. Issues such as drug abuse, student brawls, school violence (bullying), online sexual exploitation, pornography, social media abuse, physical and psychological violence, sexual assault, kidnapping, and abortion have become increasingly prevalent.³ Additionally, broader social problems, such as deteriorating interpersonal respect, environmental neglect, and escalating conflicts between students, have contributed to a distressing educational atmosphere. These challenges indicate that religious and moral education in schools and universities has not yet yielded a significant positive impact on students' behavior. In many cases, there remains a discrepancy between individuals' words

¹Rosa Susanti . 2013. " Implementation of Character Education among Students ". In the journal *Al- Ta'lim* volume No. 6 [online], 53 pages . Available : <http://www.journal.tarbiyahainib.ac.id/index.php/attalim/article/viewFile/46/53> [January 25, 2020]

² Ministry of National Education . *Law National Education System*. Jakarta: Documentation Center Ministry of National Education , 2003

³ Data source: Indonesian Child Protection Commission, Data, Information and Complaints Division, 2011-2016, www.kpai.go.id.

and actions, reflecting a crisis in moral integrity. This condition suggests that the education system must take a more active role in bridging the gap between knowledge and practice, ensuring that moral and ethical teachings translate into real-world behavior.

The implementation of character education at the intermediate school level—whether in high schools, Madrasah Aliyah (MA), or vocational schools—must be considered an alternative solution to addressing various moral issues among students and the broader nation. Achieving this goal requires hard work from all parties, particularly through educational programs that contribute significantly to national civilization. However, the successful implementation of character education at the intermediate school level requires a comprehensive understanding of relevant concepts, theories, methodologies, and applications related to character formation and moral education.

In Islam, character education is deeply rooted in the exemplary character of the Prophet Muhammad (SAW). His life and teachings serve as a model of moral values that are noble and profound. This is reinforced in the Quran, as stated in Surah Al-Ahzab, verse 21:

لَقَدْ كَانَ لَكُمْ فِي رَسُولِ اللَّهِ أُسْوَةٌ حَسَنَةٌ لِّمَن كَانَ يَرْجُوا اللَّهَ وَالْيَوْمَ الْآخِرَ وَذَكَرَ اللَّهَ

Translation:

*"Indeed, in the Messenger of Allah, you have an excellent example for anyone whose hope is in Allah and the Last Day and [who] remembers Allah often."*⁴

This verse underscores that Islamic teachings and character education should be emulated, ensuring that individuals live in accordance with Sharia guidance. The Prophet Muhammad (SAW) serves as a role model for humanity, instilling moral values that reflect the highest level of faith. By following his example, individuals develop a strong moral foundation that guides their thoughts, actions, and interactions with others. The development of character education must align with the broader educational orientation. Learning should be designed to instill specific moral values in students that contribute to their personal growth as individuals and as members of society. These values should be internalized affectively and practiced in daily life, as the quality of one's deeds determines their level of piety before Allah (SWT).⁵ A well-rounded character education program fosters self-discipline, responsibility, empathy, and integrity, equipping students to navigate the complexities of the modern world while upholding Islamic principles.

The prevalence of social problems among children and adolescents in educational settings presents a significant challenge for the nation, including the government. Issues such as violence, bullying, moral degradation, and the erosion of ethical values necessitate urgent intervention. In response, the government has actively promoted character education as a means to address these challenges and restore moral values within the education system. Education should not solely focus on advancing science and technology but should also cultivate spiritual awareness and strengthen the connection between students and their Creator. In this regard, Islamic religious education (Pendidikan Agama Islam or PAI) plays a vital role in shaping students' moral and ethical outlook from elementary school to higher education.

⁴ QS. AL-Ahzab .21

⁵ Muhaimin et al., *Ibid*, page 75

Through PAI, students develop a harmonious balance between their academic pursuits and their spiritual responsibilities as servants of Allah (SWT), tasked with contributing to the betterment of the world.

Given the significant role of PAI in character formation, Islamic Religious Education should not merely be a transfer of knowledge about Islam from teachers to students. Instead, it must serve as a transformative process that builds students' character. Schools, particularly institutions such as SMK 5 in Luwuk Timur District, Banggai Regency, have a clear mission to produce students who are faithful, pious, knowledgeable, and morally upright. These institutions aim to integrate Islamic teachings into students' ways of thinking and behaving, fostering character development in alignment with religious principles. This mission resonates with the broader objectives of education, which include the transfer of knowledge, the preservation of cultural heritage, and the transmission of values. The process of character formation through Islamic Religious Education necessitates continuous innovation in learning methodologies. This includes the careful selection of teaching materials, curriculum development, instructional strategies, and religious coaching models that effectively instill moral values. By implementing a holistic approach to character education, schools can cultivate students who not only excel academically but also embody ethical and moral integrity, ultimately contributing to the progress and moral strength of the nation.

The researcher conducted this study at SMK Negeri Lima, a vocational high school located in Banggai Regency. Like other formal educational institutions, SMK Negeri Lima operates within the framework of the national education system, adhering to regulations that govern teaching and learning mechanisms, instructional methods, and curriculum implementation. This includes the integration of character education alongside academic instruction, ensuring that students not only develop technical skills but also cultivate strong moral and ethical values. The students of SMK Negeri Lima in Luwuk, Luwuk Timur District, demonstrate a relatively good understanding of religious teachings. This is largely attributed to the presence of qualified religious educators, who are graduates of Islamic religious colleges. Their expertise ensures that religious character education is systematically implemented in the school environment. Evidence of this can be seen in the various religious programs and activities at the school, such as obligatory congregational prayers, training students to become muezzins, leading congregational prayers, delivering Friday sermons, and practicing sunnah prayers and fasting. Additionally, students are encouraged to engage in dhikr and supplication as part of their daily routine.

Given the increasing moral challenges faced by students in today's society, it is imperative for schools to take a proactive role in promoting character education. Academic excellence and high report card grades must be accompanied by the cultivation of strong moral and ethical principles. Beyond intellectual and technical competencies, students should develop essential personal attributes such as honesty, sincerity, devotion, independence, responsibility, and humility. These qualities will not only shape them into well-rounded individuals but also foster a sense of empathy and solidarity with their communities. The choice of learning models plays a crucial role in educational institutions. Each teacher employs different instructional approaches, tailored to the specific learning objectives of their subject matter. The effectiveness of teaching depends on the ability to create engaging learning conditions that encourage active student

participation. When students are actively involved in the learning process, they develop a higher level of motivation, which in turn enhances their academic performance. Therefore, selecting an appropriate and varied learning model is essential to maintaining student interest and maximizing learning outcomes. Teachers must carefully align their instructional methods with the intended educational goals, ensuring that students not only acquire knowledge but also develop the character and skills needed for their future roles in society.

2. METHODS

This study employed the Research and Development (R&D) method, which was designed to develop specific educational products while assessing their validity, practicality, and effectiveness.⁶ The research focused on the development of an Islamic Religious Education (PAI) learning model based on character education for students at SMK 5 Luwuk, East Luwuk Subdistrict, Banggai Regency. Through this approach, the study aimed to ensure that the developed learning model was not only theoretically sound but also empirically validated for practical application in educational settings. As defined by Borg & Gall (2003), R&D was a systematic process used to develop and validate educational products.⁷ Similarly, Richey & Klein (2007) emphasized that R&D involved a structured study, development process, and evaluation, with the goal of establishing an empirical foundation for product creation.⁸ Gay, Mills, & Airasian (2012) further elaborated that R&D research identified user needs and subsequently developed products to address those needs.⁹ Unlike theoretical research, the primary objective of R&D in education was not to formulate or test theories but to develop effective and applicable educational products that could be integrated into school curricula.

To comprehensively analyze the development and implementation of character-based PAI learning models, this study adopted a multidisciplinary approach, incorporating managerial, pedagogical, psychological, and historical perspectives. The managerial aspect examined the implementation of the PAI curriculum in state vocational high schools (SMK) in Luwuk District. Curriculum implementation was a crucial component of educational management, particularly in religious education, as it ensured that Islamic teachings were effectively integrated into students' learning experiences. By understanding how PAI learning was structured and managed within the school system, this study sought to identify best practices and areas for improvement. The pedagogical approach focused on correlating educational theories with empirical findings, particularly in the area of curriculum and instructional material development. By bridging theory and practice, this study aimed to enhance the quality of Islamic Religious Education (PAI) learning to better align with students' needs and educational objectives. The effectiveness of curriculum design in religious education was largely determined by how well it responded to contemporary challenges while maintaining the core principles of Islamic teachings. In addition

⁶Richey, R.T., & Klein, J.D. *Design and Development Research* . London: Lawrence Erlbaum Associates, Inc. 2007. 14 p.

⁷Borg, WR, & Gall, MD *Educational research: an introduction* . London: Longman, Inc. 1983.

⁸Richey, R.T., & Klein, J.D. *Design and Development Research* . London: Lawrence Erlbaum Associates, Inc. 2007. 14 p.

⁹Gay, LR, Mills, GE, & Airasian , P. *Educational research: Competencies for analysis and application*. Upper Saddle River, NJ: Pearson Education. 2009.

to the pedagogical dimension, this research incorporated a psychological approach, which examined the psychological factors influencing teachers, students, and the broader school community in relation to character education. Understanding these psychological dynamics was essential for developing learning models that were engaging, motivational, and conducive to students' moral and ethical development. A well-structured character education program needed to consider students' cognitive, emotional, and behavioral aspects, ensuring that moral values were internalized and reflected in their daily lives.

Furthermore, a historical perspective was employed to explore the evolution and implementation of Islamic Religious Education (PAI) in vocational high schools in Luwuk District. By analyzing historical developments, this study aimed to identify patterns, challenges, and successes in religious education over time. A historical analysis provided a deeper contextual understanding of the role of PAI in character development, allowing for more informed decisions in the design and implementation of modern learning models. By integrating these various research approaches, this study ensured a comprehensive and multidisciplinary framework for developing an empirically validated character-based PAI learning model. The findings contributed to the enhancement of Islamic Religious Education in vocational schools, ultimately fostering students who were not only intellectually and socially competent but also morally upright and ethically responsible. Through a systematic approach to curriculum design, pedagogy, psychological engagement, and historical reflection, this study aimed to offer a meaningful contribution to character education in vocational high schools in Indonesia.

3. RESULTS AND DISCUSSION

Based on the findings from the needs analysis phase, it was concluded that both teachers and students required a new learning model that could contribute to improving learning outcomes. One such model was the Character Education-Based PAI Learning Model. At SMK 5 East Luwuk, Central Sulawesi, Indonesia, the PAI learning process was still based on the 2013 Curriculum, utilizing an integrative thematic system. However, teachers had not yet introduced innovations or developments in PAI learning by integrating other relevant aspects. In other words, most teachers remained dependent on the 2013 Curriculum without making any efforts to design learning models that incorporated Character Education elements. Similar findings were also reported in other studies on the development of PAI teaching materials. Teachers at SMK 5 East Luwuk continued to apply the 2013 Curriculum rigidly, relying solely on the prescribed guidelines without introducing innovative enhancements to their teaching materials. This indicated that PAI teachers required instructional materials that integrated Character Education into the PAI learning process.¹⁰ Without such integration, PAI lessons remained theoretically structured but lacked practical reinforcement in fostering students' character development. The previous section on the prototype of the Character Education-Based PAI Learning Model described the various products developed through research and development activities. These included a Character Education-Based PAI Learning Model book and a teaching guidebook for

¹⁰Widodo & Azis. *Development educational teaching materials physical sport integrated health (PJOK) with Islam Muhammadiyah Language Arabic (ISMUBA) at Muhammadiyah elementary school / MI . 3 (1)*. Window Sports . 2018. 48-56

implementing the model. The most critical aspect to be discussed in this section was the main components of the developed learning model, as every learning model required specific essential elements to function effectively.

The Character Education-Based PAI Learning Model for students at SMK 5 East Luwuk was structured based on the learning model components proposed by Joyce & Weil,¹¹ which included: First, the Syntax or Learning Steps, which outlined the sequential stages guiding the learning process. Second, the Social System, which determined the interaction patterns among students and teachers within the learning environment. Third, the Support System, which referred to the resources, materials, and instructional aids that supported the implementation of the learning model. Fourth, the Reaction Principle, which defined the teacher's role in responding to students' actions to ensure that learning remained engaging and meaningful. Finally, the Instructional and Accompanying Impacts, which represented the primary learning outcomes (instructional impact) and additional benefits (accompanying impact) that resulted from implementing the model. The prototype of the Character Education-Based PAI Learning Model was developed in response to the needs analysis findings, aiming to enhance students' character development alongside their academic achievements. The model provided a structured yet adaptable framework, ensuring that teachers could integrate Character Education principles effectively into PAI instruction. Through this model, students were expected to not only gain religious knowledge but also develop strong moral character, ethical responsibility, and social awareness as part of their learning experience.

1) Syntax/Learning Steps (HASNAH)

	HELLO FOR STUDENTS (GREETING STUDENTS / ABSENCE)	Greetings open the door continue to be continued pray
	ACT (ACT)	The teacher presented a Flash Macromedia project and then provided an example of a reading method.
	SAY (TO SAY)	The teacher prepared verses that needed to be discussed in accordance with the learning objectives. Then, the teacher provided instructions and gave students the opportunity to observe and analyze the verses based on Tajweed rules.
	NURTURE (GUIDING)	Through group discussions of 2-3 students, the results of the Tajweed analysis were recorded on paper. The teacher observed and monitored the students' discussions.
	A = AGREE (AGREE)	Each group was given the opportunity to present the results of their discussion based on the group's agreement.
	H = HOPE	The teacher hoped that Islamic Religious Education learning based on character education could be applied in daily life.

¹¹Joyce, B and Weil, M. Models of Teaching. London: Prentice-Hall, Inc. 1992.

2) The Social System

The social system in character-based Islamic Religious Education learning involved several key aspects. First, action referred to the teacher's role in planning activities that would engage students and provoke their reactions related to character education. Second, interaction emphasized a balanced relationship between teachers and students. Teachers were encouraged not to dominate the learning process but instead provide opportunities for students to develop their character under proper guidance. Third, transactions in knowledge transfer were designed not merely as the delivery of information but rather through role modeling, ensuring that students internalized values through experiential learning.

3) The Reaction Principle

The reaction principle guided how teachers and school management engaged with students. Teachers and school administrators needed to establish good communication to ensure that character education was consistently integrated across different subjects. Educators were also required to design the learning process with a focus on achieving character development goals. The teacher played multiple roles: as a facilitator, allowing students to define their learning goals and utilize various resources; as a moderator, bridging the expectations of students and parents to ensure harmony in character formation at school and in the community; as a motivator, making learning engaging and inspiring students; and as an evaluator, ensuring assessments were aligned with predetermined character education objectives.

4) The Support System

The support system for this learning model included essential resources such as a teaching guidebook, which detailed technical steps for implementing character-based Islamic Religious Education, from lesson planning to character assessment. Additionally, the RPP (Lesson Plan Implementation) was structured to integrate character education values, ensuring a well-organized approach to teaching and learning.

5) Instructional Impact and Accompanying Impact

The instructional impact of the PAI learning model based on character education was evident in the development of learning objectives and lesson plans (RPP) that aligned with character indicators. Meanwhile, the accompanying impact extended beyond academic outcomes to the achievement of core character values such as honesty, hard work, responsibility, and role modeling.

A study by Ulinniam et al.¹² revealed similar findings, highlighting that teachers expressed reservations about the implementation of Distance Learning. The primary concerns included students' lack of focus and the financial burden on parents for internet expenses. Consequently, the 2013 curriculum was largely implemented only at the document level—through curriculum frameworks, syllabi, lesson plans, and program planning—without substantial integration into classroom practice. The findings indicated that the practical implementation of the 2013

¹² Ironwood et al . Implementation 2013 Curriculum Revised During the Pandemic at SMK IBS Tathmainul Quluub Indramayu . 2 (1), Indonesian Journal of Education. 2021. 118–126.

curriculum at SMK 5 Luwuk Timur still required significant improvements. Other studies similarly emphasized the need for character education development in PAI learning. Research suggested that teachers required further professional development to enhance their instructional skills, particularly in adapting to the learning characteristics of Generation Z students, who were born between 1995 and 2000.¹³ This aligns with Gandasari's research,¹⁴ which underscored the necessity of varied and interactive learning models under the 2013 curriculum.

A crucial stage in research and development is the needs analysis phase, which serves to identify and assess the needs of users—teachers and students—before developing a learning model. This phase is essential because it provides a foundation for designing educational products that align with actual learning demands. Needs analysis helps bridge the gap between current educational practices and expected learning outcomes. It involves evaluating the discrepancies between the existing learning conditions and the ideal expectations.¹⁵ Fundamentally, needs analysis ensures that the curriculum remains relevant to students' evolving needs. While researchers develop learning products tailored to these requirements, it is essential that such adaptations do not contradict the existing curriculum.¹⁶ Hossain affirmed that a curriculum should be adjusted to meet user needs, ensuring alignment and complementarity between the two. Needs analysis plays a critical role in student-centered learning, where educational approaches must be responsive to learners' needs. Furthermore, it should be contextualized within curriculum frameworks, textbooks, challenges faced in implementation, and rationalized learning methodologies to optimize educational outcomes.¹⁷

The findings of this study indicate that the PAI learning model, which is based on character education, has been declared valid. The validity test was conducted to assess the level of validity of the developed product, based on expert and validator assessments. The developed learning products in this study include the Lesson Plan (RPP) and model books, both of which were validated by experts. The validators assigned an average score of 3.59 for the RPP and 3.32 for the model book, indicating that both products were deemed valid and ready for broader implementation.

Several previous studies on the development of the PAI learning model have also applied validity testing to evaluate the quality of the developed learning products.¹⁸ In other subject areas, research has similarly utilized validity testing to determine the extent to which educational products meet academic standards based on validator assessments.¹⁹ A valid learning model is

¹³ Kusumaningtyas et al . *Improvement Quality Teacher Learning Through Learning Models and Media for Generation Z* . 23 (1), LPM News . 2020. 54–62.

¹⁴ Gandasari . *Development of learning models thematic education physical sport health For school basic* . 15 (1), Indonesian Journal of Physical Education . 2019. 22–27.

¹⁵ Puspita et al . *A Needs Analysis for Poetry Appreciation Textbooks in Universities : An Exploratory Study* . 5 (4), American Journal of Educational Research. 2017. 357–361.

¹⁶ Ndukwe. *Needs Analysis of An English for Academic Purposes (Eap) Program: English Language Curriculum to the Effectiveness of the Primary School Teacher in Nigeria* . 5 (4). IOSR Journal of Research & Method in Education Ver. III. 2015. 2320–7388.

¹⁷ Tzotzou . *Designing and Administering a Needs Analysis Survey to Primary School Learners about EFL Learning: A Case Study* . 2 (1), Preschool & Primary Education. 2014. 59–82.

¹⁸ Gandasari . *Development of learning models thematic education physical sport health For school basic* . 15 (1), Indonesian Journal of Physical Education , 2019. 22–27

¹⁹ Hamida & Desnita . *The validity of contextual-based physics learning videos to improve students' 4c skills*. 25 (2), International Journal of Progressive Sciences and Technologies (IIPSAT). 2021. 175–184

characterized by its ability to meet learning needs, align with contemporary educational developments, possess a strong theoretical foundation, and maintain consistency among its components.²⁰ Validation is conducted to ensure alignment between theory, learning activities, instructional steps, and teaching methodologies²¹.

As previously mentioned, validity testing in research and development is crucial for assessing the quality of developed educational products. According to Rogayan Jr. and Dollete,²² validation typically involves multiple aspects depending on specific needs. In general, validity tests assess four key aspects: (a) adequacy, (b) coherence, (c) appropriateness, and (d) usefulness. Typically, validation tests focus on two main aspects: content validity and construct validity.²³ Content validity was the primary focus of this study, as it evaluates whether all components of the learning model align with current knowledge and educational standards. Additionally, content validity emphasizes the need for model development and design improvements in the current context.²⁴

Following the validity test, the study proceeded to practicality testing, which assesses how well the developed learning product can be used by its intended users—lecturers and students. Data analysis from two research instruments, the teacher response questionnaire and the student response questionnaire, indicated that the PAI learning model based on character education was highly practical. The teacher response questionnaire scored 89%, and the student response questionnaire scored 92.06%, both categorized as "very practical."

A learning product is considered practical when its users—teachers and students—find it easy to use and understand. Jaedun et al.²⁵ stated that a developed product is practical if it meets two conditions:

1. Lecturers agree that the product can be implemented with minor revisions.
2. The product can be applied in real educational settings, aligning with the curriculum, time allocation, and institutional conditions.

Similarly, other researchers have emphasized that practicality is determined by the ease with which teachers and students can use the model under normal conditions.²⁶ The practicality of a training model is also assessed by how effectively users apply it during the learning process without encountering significant obstacles.²⁷ Beyond these factors, the practicality of a learning

²⁰ Nieveen . Prototyping to Achieve Product Quality. In J. Van Den Akker, R. M. Branch, K. Gustafson, & Nienke Nieveen (Ed.). *Design Approaches and Tools in Education and Training* . 1999. Kluwer Academic Publishers.

²¹ Gravemeijer & Cobb. *Design research form in a learning design perspective* . In J. Van Den Akker, K. Gravenmeijer , S. McKenney, & N. Nieveen (Ed.). 2017. Educational design research (pp . 17–51). Routledge.

²² Rogayan & Dollete . *Development and Validation of Physical Science Workbook for Senior High School* . 30 (4), Science Education International. 2019. 84–290

²³ Muhali et al . *The Validity and Effectiveness of the Reflective-metacognitive Learning Model to Improve Students' Metacognition Ability in Indonesia* . 16 (2), Malaysian Journal of Learning and Instruction. 2019. 33–74

²⁴ Plomp . *Educational Design Research: An Introduction*. 2013. Netherlands Institute for Curriculum Development.

²⁵ Jaedun et al . *Development of Learning Models Productive Loaded Entrepreneurship* . 1 (1), Journal Education . 2017 . 125–138.

²⁶ Yazid. *Validity , Practicality , and Effects Potential A Teaching Material*. 2011. Postgraduate Program of Sriwijaya University .

²⁷ Syah Putra et al . *The development of biology interactive learning media based macromedia flash in the material of digestive system of human at class xi sma /ma* . Proceedings of Biology Education Conference 2015. 636–643.

product is also influenced by its appeal to teachers and students. If users find the product beneficial and convenient, then the learning objectives are more likely to be achieved.²⁸ Hala et al. support this claim,²⁹ noting that students tend to respond positively to learning models that allow them to actively engage with the material, leading to better comprehension and participation in the learning process.

In addition to validity and practicality tests, the quality of the developed learning products is also assessed through an effectiveness test. The effectiveness test in this study aimed to evaluate the impact of the PAI learning model on students' learning outcomes. The results of this test indicate that the PAI learning model based on Character Education is proven effective in improving students' learning achievements. As described in the findings/results section, the average student learning outcome scores from five classes were 3.6 and 3.7. These scores fall within the 3.6 to 4.0 range, which is categorized as "very effective." The findings of this study align with several previous studies, which have also highlighted the positive impact of Character Education-Based PAI Learning on students' academic performance. Widiani et al. (2018)³⁰ state that learning communication strategies that incorporate character education positively influence students' cognitive learning outcomes. When compared to a control group using a different instructional method, students taught through character-based learning demonstrated greater academic improvement than those in the control group.

Further supporting these findings, Utami's research³¹ revealed that the implementation of character education through disciplinary activities at SDN Gayamsari 01 Semarang was successfully executed. These activities were conducted through structured discipline programs, which align with the findings of Rusmayanti & Mardiyah (n.d.),³² who emphasize that educational programs should aim to develop students into intelligent, well-mannered individuals with noble character. Similarly, Muhammadiyah 1 Prambanan Vocational School in Klaten integrates character education into its curriculum, ensuring that students not only prioritize academic knowledge but also cultivate moral and ethical values through integrated character education programs, self-development initiatives, and school culture activities. Additionally, research by Achimelita et al.³³ highlights the importance of character education in vocational schools, identifying core character values frequently emphasized by educators, such as discipline, religious commitment, communication skills, hard work, responsibility, and honesty. Moreover, the study indicates that the character traits most desired by industries in vocational graduates include religiosity, discipline, effective communication skills, responsibility, and honesty.

²⁸ Mustami et al . *Validity, Practicality, and Effectiveness Development of Biology Textbooks Integrated with Augment Reality on High School Students* . 11 (2). International Journal of Technology Enhanced Learning. 2019. 187–200.

²⁹Hala et al . *Development Devices Learning Biology Based on Approach scientific on Concept Ecosystem for Student School Intermediate First . 1* (3), Journal of education and Science Technology. 2015. 85–96.

³⁰ Widiani et al . *The effectiveness of traditional game-based communication learning activity for cognitive process dimension learning achievement*. 37 (2), Education Horizon . 2018. 260–269.

³¹ Utami . *Implementation of Character Education Through Activity Discipline Students* . 4 (1), Journal of Education (Theory and Practice). 2019. p63-66

³² Rusmayanti & Mardiyah . *IMPLEMENTATION OF CHARACTER EDUCATION AT MUHAMMADIYAH 1 VOCATIONAL SCHOOL, PRAMBANAN, KLATEN*.

³³ Achimelita et al . *Character Education Model in Schools Intermediate Vocational* . 5 (1), Journal of Community Morals . 2020. 27–33.

a) Analysis Stage

Referring to the research findings, from the teachers' perspective, there is a clear need for the development of a PAI learning model based on Character Education that is comprehensive and varied for vocational high school students. Regarding the curriculum analysis implemented in schools, teachers indicated that the school follows the 2013 curriculum, which emphasizes student-centered learning. This curriculum incorporates interactive, networked, inquiry-based, and group-based approaches while integrating multimedia tools. Additionally, it promotes critical thinking, interdisciplinary learning, and potential development, which requires teachers to adopt appropriate perspectives and acquire the necessary skills to manage Character Education-Based PAI Learning effectively. This approach aims to enhance students' learning outcomes at SMK 5 East Luwuk.

In the analysis of students' characteristics, it was found that students experience difficulties in practicing Character Education material. Understanding students' social and cultural backgrounds is essential for contextualizing their learning experiences. Various factors, such as family values, social norms in their environment, and life experiences, influence their ability to internalize and apply character education in practice. An analysis of the learning process in schools highlights the teachers' role in the PAI learning process based on Character Education through several key components. The initial step in building Islamic Religious Education Learning Based on Character Education is identifying the character values to be instilled in students. These values include honesty, hard work, tolerance, compassion, and justice. Teachers design lesson plans that integrate character values into each learning activity. This can be achieved through the selection of teaching materials, instructional strategies, and relevant activities that support character formation.

The learning process is conducted through direct experiences or simulated situations, enabling students to practice character values in real-life scenarios. This can be facilitated through role-playing, discussions, or collaborative projects that require teamwork and responsibility. After engaging in experiential learning, students are encouraged to reflect on their experiences and discuss how character values can be applied in their daily lives. These discussions help students develop a deeper understanding of moral and ethical concepts. Teachers are not merely information transmitters but also serve as role models for students in practicing character values. By demonstrating appropriate behavior consistent with the values being taught, teachers enable students to observe and emulate positive character traits. Learning evaluation is not solely based on students' understanding of the material but also on their ability to practice character values in everyday life. This can be assessed through project-based assignments, observations, and self-reflections. Therefore, a theoretical study based on relevant literature is needed to design effective learning models. The literature review focuses on the PAI learning model based on Character Education, which aligns with Gestalt learning theory. This theory emphasizes the harmonious connection between individuals and society. Its core principle suggests that an object or event is perceived as an organized whole rather than as isolated parts. Consequently, learning becomes more meaningful when instructional materials are presented holistically rather than fragmented.

b) Design Stage

Based on the results of the needs analysis, the development of a PAI learning model based on Character Education for vocational high school students has become a necessity. This development takes the form of a learning guidebook designed to support the implementation of Character Education-Based PAI Learning. The guidebook is created using Microsoft Word and Adobe Corel Draw, ensuring a well-structured and visually appealing presentation. Before implementation, the book undergoes expert validation to assess its validity, practicality, and effectiveness. These evaluations help refine and improve the guidebook to ensure its successful application in the learning process.

Prior to its use, the Character Education-Based PAI learning guidebook undergoes a trial phase to achieve the expected outcomes of the development process. To ensure its effectiveness, the researcher presents the rationale, objectives, and significance of the guidebook. The book is designed not only as a reference for teachers but also as a practical guide for implementing Character Education-Based PAI Learning. Additionally, it serves as a resource for improving students' Islamic Religious Education learning outcomes by providing structured guidance and strategies for effective teaching and learning.

c) Development Stage

The development process of the Character Education-Based PAI Learning model follows the ADDIE model, which consists of five stages: Analysis, Design, Development, Implementation, and Evaluation. During the development stage, the product undergoes a validation test by expert validators to ensure its quality and effectiveness. This validation process is crucial in assessing the quality of the learning guidebook before its implementation. The validation of the learning guidebook plays a significant role in determining its quality. A small-group trial and a field trial were conducted to refine the guidebook and enhance its effectiveness in improving Islamic Religious Education learning outcomes. Based on evaluations from validators, the developed product was found to be highly valid. To assess the validity level of the product, various instruments were first validated by experts. These instruments included the Character Education-Based PAI learning guidebook, implementation instruments, lesson plans, educator response questionnaires, student response questionnaires, assessment tools for learning outcomes, and social skills observation sheets.

The observation sheet for implementation was developed to assess aspects such as format, content, and language. The format aspect includes clear instructions for filling out the observation sheet, accurate presentation of evaluation instructions, and the use of an appropriate font type and size to ensure readability. Validator assessments indicated that the format aspect received the highest validity score of 3.8. The educator response questionnaire was designed to evaluate the guidebook based on format, content, and language aspects. The questionnaire's format received the highest validity score of 4.0, aligning with validity criteria established by Khabibah (2006). In general, the assessment instrument for each component was deemed appropriate and valid by the validators. This finding indicates that the clarity of the questionnaire instructions, as well as the readability of the font type and size, met the necessary academic standards. Consequently, the educator response questionnaire can be effectively utilized in the research process with only minor revisions. Similarly, the learner response questionnaire was developed based on format, content,

and language aspects. The evaluation results showed that the format aspect achieved the highest validity score of 4.0, demonstrating that the questionnaire's instructions were clear, and the font type and size were easy to read. Given these findings, the learner response questionnaire can be applied in the research process without requiring any revisions.

The study result assessment instrument was developed by researchers to support the development of a social interaction-based learning model that incorporates traditional games. This instrument was designed based on four key evaluation aspects: material, presentation format, language, and time. Among these aspects, the material evaluation received the highest validity score of 4.0. This indicates a strong alignment between the questions provided and the indicators of basic competency achievement, learning objectives, and core material. Additionally, the instrument ensures clarity in question limitations, coherence between questions and the subject matter, and explicit answer expectations. The overall validity of the study result assessment instrument was confirmed, as its development followed structured guidelines for question formulation. This process included determining assessment objectives, considering standard competencies (SK) and basic competencies (KD), selecting appropriate assessment tools, designing a test framework, and constructing test items along with scoring guidelines. The Learning Implementation Plan (RPP) for Character Education-Based PAI was designed to achieve learning objectives that align with both core competencies and basic competencies. The evaluation of the RPP was based on three key aspects: material, format, and language. Among these, the language aspect received the highest validity score of 4.0. This score reflects the grammatical accuracy, proper sentence structure, and communicative clarity of the language used in the learning implementation design, ensuring that instructional materials are both comprehensible and effectively delivered.

The overall cumulative validity of the developed Learning Implementation Plan (RPP) meets the valid criteria. This is because it aligns with the Minister of National Education Regulation Number 41 of 2007 concerning process standards, particularly in relation to the required RPP components. These components include the identity of the subject, competency standards, basic competencies, competency achievement indicators, learning objectives, teaching materials, time allocation, learning methods, learning activities, learning assessments, and learning resources. Additionally, the RPP is considered valid as it fulfills the necessary format, language, and content criteria for a well-structured learning plan.³⁴ The study findings also indicate that the development of a PAI learning model based on character education is valid.³⁵ The validity test was conducted to determine the level of validity of the developed product based on expert or validator assessments.³⁶ The developed learning product, consisting of the RPP and the model book, was declared valid by experts. The validators provided an average score of 3.59 for the RPP and 3.32 for the model book. Therefore, both products were officially recognized as valid and suitable for wider trials.

³⁴ Majid. *Planning learning and development standard teacher competence* . 2008. Bandung: Rosdakarya .

³⁵ Gandasari . *Development of learning models thematic education physical sport health For school base* . 15 (1), Indonesian Journal of Physical Education . 2019. 22–27.

³⁶ Muruganantham . *Developing of E-content Package by Using ADDIE Model* . 1 (3), International Journal of Applied Research. 2015. 52–54.

Previous studies on the development of learning models, including the PAI learning model based on character education, have also employed validity testing to measure the quality of the learning product. In other subject areas, various studies have also applied validity testing to determine the level of validity based on expert assessments. Furthermore, the validity of a learning model is determined by factors such as its relevance to learners' needs, its alignment with state-of-the-art educational practices, its strong theoretical foundation, and the consistency among its components.³⁷ Validation is conducted to ensure alignment between theoretical concepts and various aspects of learning, including student learning activities, instructional steps, and teaching methods. In addition to validity and practicality tests, the quality of the learning product is also determined through an effectiveness test. The effectiveness test in this study aimed to assess its impact on students' learning outcomes. The results demonstrated that the PAI learning model based on character education was effective in improving students' learning outcomes and social skills. As indicated in the research findings, the average learning outcome scores of students at SMK 5 East Luwuk were 3.6 and 3.7. These average scores fall within the range of 3.6 to 4.0, which is categorized as "very effective." These findings align with previous research, which has emphasized the effectiveness of character education-based PAI learning models in enhancing learning outcomes. Maksum (2019) asserts that in transferring learning outcomes for Islamic Religious Education,³⁸ which includes attitudes, skills, and knowledge, teachers must understand the learning strategies they intend to apply. A solid understanding of learning strategies is crucial as it directly influences the methods used, ensuring that learning objectives are optimally achieved.

d) Implementation Stage

The analysis of educators' responses to the development of Character Education-Based PAI Learning indicates a positive reception across various evaluation aspects. The questionnaire assessed key elements such as the thematic cover design, alignment between Core Competencies (KI) and Basic Competencies (KD), coherence between indicators and learning objectives, relevance of learning materials to objectives, alignment of materials with assessment components, practicality and ease of understanding, suitability of content for learners' characteristics, clarity and appropriateness of language, effectiveness of images in enhancing comprehension, and the overall alignment of learning materials with competency achievement indicators. Based on the research findings presented in Table 4.10, the responses from educators across both small-scale and large-scale field tests indicate a percentage rating classified as "very good." According to Akbar and Sriwijaya (2011: 207),³⁹ an evaluation of practicality based on educators' questionnaire responses, with a percentage range of 80%–100%, falls under the "very good" qualification. The average response score achieved was 4.5.

Given this score, it can be concluded that the development meets the criteria for "very practical" ($P_k > 4.0$), meaning that no revisions are required based on educators' feedback. As a

³⁷ Nieveen . Prototyping to Achieve Product Quality. In J. Van Den Akker, R. M. Branch, K. Gustafson, & Nienke Nieveen (Ed.), *Design Approaches and Tools in Education and Training* . 1999. Kluwer Academic Publishers.

³⁸ Maksum . *TEACHING AND LEARNING STRATEGIES IN AN EFFORTS TO IMPROVE LEARNING OUTCOMES OF ISLAMIC RELIGIOUS EDUCATION* . 3 (1). 2019.

³⁹ Akbar et al . *Development Curriculum and Learning Knowledge Social Sciences* . 2011. Yogyakarta: Cipta Media.

result, the questionnaire used to assess practicality is deemed valid and applicable without modification in the learning process. The analysis of students' responses to the development of Character Education-Based PAI Learning also indicates a positive reception. The questionnaire consisted of 22 questions, and the results show that the average response percentage from students in schools that participated in small-scale or limited group testing was classified as "very good."⁴⁰ Similarly, the average response percentage from students in schools involved in large-scale or field testing also fell under the "very good" category. Based on the practicality evaluation criteria, a response percentage ranging from 80% to 100% is categorized as "very good" (Akbar & Sriwijaya, 2011: 207). This suggests that students were able to understand and engage with the learning materials effectively across all components provided. The results further indicate that the majority of students gave a positive response, demonstrating that they found the learning process clear and comprehensible. Therefore, the development of the Character Education-Based PAI Learning Model meets the practicality criteria and can be implemented and further developed at SMK 5 East Luwuk in Banggai Regency.

e) Evaluation Stage

The evaluation of the implementation of Character Education-Based PAI Learning was conducted to measure the effectiveness of the developed learning model in terms of students' social skills and learning outcomes. The results show that the average score obtained is 3.7, which, when rounded, becomes 4. This indicates that students demonstrated a high level of skill, as reflected in the overall average score of SMK 5 East Luwuk students who participated in character education-based learning, which was categorized as "highly skilled." These findings suggest that students developed social skills comprehensively through the learning process. The effectiveness of character education-based PAI learning was further supported by the structured role-playing activities, which allowed teachers to focus on guiding and assessing students effectively. Additionally, the relatively small class size of 20 students facilitated more individualized assessment of social skills, making it easier for teachers to evaluate each student's progress. Regarding students' academic achievements, the study conducted at SMK 5 East Luwuk in Banggai Regency found that the average percentage of students' learning outcomes fell within the "highly skilled" category, achieving a 100% completion rate. This was determined based on the minimum learning achievement criteria, where at least 75% of students needed to achieve a score of ≥ 70 . When comparing the students' average scores before and after the implementation of the learning model with the Minimum Completion Criteria (KKM) of 70, the results showed that the average student performance met or exceeded the KKM. Therefore, it can be concluded that the Character Education-Based PAI Learning Model is effective in enhancing both students' academic performance and social skills.

4. CONCLUSION

In conclusion, this study underscores the critical role of character education in shaping the moral and ethical foundation of students, particularly within the framework of Islamic Religious Education (PAI). The development and implementation of the Character Education-Based PAI

⁴⁰ *Ibid.*

Learning Model at SMK 5 East Luwuk, Banggai Regency, have demonstrated significant potential in addressing the moral and ethical challenges faced by students in contemporary society. By integrating character education into the PAI curriculum, this model not only enhances students' academic performance but also fosters the development of essential moral values such as honesty, responsibility, empathy, and integrity. The research employed a systematic Research and Development (R&D) approach, ensuring that the developed learning model was both theoretically sound and empirically validated. The findings revealed that the Character Education-Based PAI Learning Model is valid, practical, and effective, as evidenced by the positive responses from both teachers and students, as well as the improvement in students' learning outcomes and social skills. The model's structured framework, which includes clear learning steps, a supportive social system, and a well-defined reaction principle, provides a comprehensive approach to character education that aligns with the broader goals of national education in Indonesia.

Moreover, the study highlights the importance of continuous innovation in educational methodologies to meet the evolving needs of students. The integration of character education into PAI learning not only addresses the immediate moral challenges faced by students but also contributes to the long-term development of a morally upright and socially responsible generation. This aligns with the vision of national education as outlined in Law No. 20 of 2003, which emphasizes the development of individuals who are not only knowledgeable and skilled but also possess noble character and a strong sense of responsibility. The successful implementation of the Character Education-Based PAI Learning Model at SMK 5 East Luwuk serves as a valuable example for other educational institutions seeking to enhance character education within their curricula. It demonstrates that with a well-designed and systematically implemented learning model, schools can effectively bridge the gap between knowledge and practice, ensuring that students not only understand moral and ethical values but also embody them in their daily lives. In light of these findings, it is recommended that further research be conducted to explore the long-term impact of character education on students' behavior and societal contributions. Additionally, ongoing professional development for teachers is essential to ensure that they are equipped with the necessary skills and knowledge to implement character education effectively. By fostering a collaborative effort among educators, policymakers, and the broader community, Indonesia can continue to advance its educational system, ultimately contributing to the development of a more just, compassionate, and morally resilient society.

Acknowledgement

The researcher would like to express the highest gratitude and appreciation to the Chancellor of UIN Alauddin Makassar, Prof. H. Hamdan Juhannis, MA, Ph.D., along with Deputy Chancellor I, Prof. Dr. H. Kamaluddin Abunawas, M.Ag., Vice Chancellor II, Dr. H. Andi Aderus, Lc., MA, Vice Chancellor III, Prof. Dr. H. Muhammad Halifah Mustamin, M.Pd., and Vice Chancellor VI, Prof. Dr. H. Muhammad Amri, Lc., M.Ag., for their leadership in fostering academic excellence. Special thanks are extended to Prof. Dr. H. Abustani Ilyas, M.Ag., and Prof. Dr. Hasyim Haddade, M.Ag., as Directors and Deputy Directors of the Postgraduate Program, as well as to Dr. Hj. Yuspiani, M.Pd., and Dr. H. Abdul Rahman Sakka, Lc., M.Pd.I, as the Head and Secretary of the Islamic Studies Doctoral Program, for their continuous

support and motivation. The researcher is also deeply grateful to Prof. Dr. Hj. Amrah Kasim, MA, Dr. Syamsuddin, M.Pd., and Dr. Mujahid Damopoli, S.Ag., M.Pd., for their valuable time, expertise, and constructive feedback in refining this research. Lastly, heartfelt appreciation is extended to fellow classmates in the Doctoral Program for their support, insightful consultations, and encouragement, which have greatly contributed to the successful completion of this academic endeavor.

REFERENCES

- Akbar, S., & Sriwijaya, H. (2011). *Development curriculum and learning knowledge social sciences*. Cipta Media.
- Akelaitis, A. V. (2015). Social skills expression of senior high school age students in physical education classes. *European Journal of Contemporary Education*, 14(4), 232–238. <https://doi.org/10.13187/ejced.2015.14.232>
- Akhimelita, L., Sumarto, S., & Abdullah, A. G. (2020). Character education model in schools intermediate vocational. *Journal of Community Morals*, 5(1), 27–33. <https://doi.org/10.21067/jmk.v5i1.4299>
- Amrah Kasim, A., Syamsuddin, S., & Damopoli, M. (2022). Educational values in the Tasybih verses in Surah Al-Baqarah (Bayan Science Analysis). *ISTIQRA Journal*, 10(1), 61–73.
- Aminah, N. (2017). Practicality of assurance, relevance, interest, assessment, satisfaction (ARIAS) model in learning mathematics. *AlphaMath: Journal of Mathematics Education*, 2(2).
- Arslan, S., & Aybek, B. (2019). Testing the effectiveness of interdisciplinary curriculum-based multicultural education on tolerance and critical thinking skills. *International Journal of Educational Methodology*, 6(1), 43–55. <https://doi.org/10.12973/ijem.6.1.43>
- Ministry of National Education. (2003). *Law of the Republic of Indonesia Number 20 of 2003 concerning the National Education System*. Directorate General of Primary and Secondary Education.
- Ministry of National Education. (2003). *Law national education system*. Documentation Center, Ministry of National Education.
- Elfindri, E., et al. (2012). *Education character framework, method and application for educator and professional*. Baduouse Media.
- Fuad, A., Karim, H., & Palennari, M. (2020). Development of E-magazine learning media as a source study biology student class XII. *Biology Teaching and Learning*, 3(1), 38–45.
- Gandasari, M. F. (2019). Development of learning models thematic education physical sport health for school basic. *Indonesian Journal of Physical Education*, 15(1), 22–27. <https://doi.org/10.21831/jpji.v15i1.25489>
- Gunawan, H. (2012). *Character education*. Alfabeta.
- Hamdan, H. (2019). Development model creativity and innovation in forming entrepreneurs in the digital economy era. *Journal of Management & Entrepreneurship*, 7(1), 59–68.
- Hamida, S., & Desnita, D. (2021). The validity of contextual-based physics learning videos to improve students' 4C skills. *International Journal of Progressive Sciences and Technologies (IJPSAT)*, 25(2), 175–184.
- Hasmawaty, H., Syam, H., & Saman, A. (2020). Validity, practicality, and effectiveness: The last step in development of entrepreneurship education based on role-playing for

- kindergarten. *Universal Journal of Educational Research*, 8(12), 8092–8101. <https://doi.org/10.13189/ujer.2020.082611>
- Jean, P., Sucihatiningsih, D. W. P., & Rusdiarti, R. (2017). Training model vocational based on utilization bamboo shoots bamboo in society village Paloan subdistrict Sengah Tenil district Hedgehog. *Journal of Vocational and Career Education*, 2(1), 70–78.
- Juhji, J., Hasbullah, H., & Maksum, A. (2019). Strategy study teach in efforts to improve learning outcomes of Islamic religious education. *Journal of Islamic Religious Education*, 3(1).
- Kusumaningtyas, R., Sholehah, I. M., & Kholifah, N. (2020). Increasing quality teacher learning through learning models and media for Generation Z. *LPM News*, 23(1), 54–62. <https://doi.org/10.23917/warta.v23i1.9106>
- Laksmiwati, P. A., & Retnowati, E. (2019). Development device learning geometry based on intelligence compound 8th grade junior high school students. *Pythagoras: Journal of Mathematics Education*, 14(1), 1–11.
- Maksum, A. (2019). Teaching and learning strategies in an effort to improve learning outcomes in Islamic religious education. *Journal of Islamic Religious Education*, 3(1).
- Muhali, M., Yuanita, L., & Ibrahim, M. (2019). The validity and effectiveness of the reflective-metacognitive learning model to improve students' metacognition ability in Indonesia. *Malaysian Journal of Learning and Instruction*, 16(2), 33–74. <https://doi.org/10.32890/mjli2019.16.2.2>
- Ndukwe, J. I. (2015). Needs analysis of an English for academic purposes (EAP) program: English language curriculum to the effectiveness of the primary school teacher in Nigeria. *IOSR Journal of Research & Method in Education*, 5(4), 2320–7388.
- Nugraha, Y. A., Handoyo, E., & Sulistyorini, S. (2018). Traditional game on the social skills of students in the social science learning of elementary school. *Journal of Primary Education*, 7(2), 220–227. <https://doi.org/10.15294/jpe.v7i2.23475>
- Nurhikmah, N., Syam, H., & Saman, A. (2021). Needs analysis of traditional game-based physical education, sports, and health learning models: Is it important to use? *Webology*, 18(6), 6384–6396.
- Puspita, O. W., Andayani, A., Waluyo, H. J., & Rohmadi, M. (2017). A needs analysis for poetry appreciation textbooks in universities: An exploratory study. *American Journal of Educational Research*, 5(4), 357–361. <https://doi.org/10.12691/education-5-4-3>
- Mulyana, G. (2004). *Articulating education mark*. Alfabeta.
- Rogayan Jr., D. V., & Dollete, L. F. (2019). Development and validation of physical science workbook for senior high school. *Science Education International*, 30(4), 84–290. <https://doi.org/10.33828/sei.v30.i4.5>
- Samani, M., & Hariyanto, H. (2011). *Draft and model education character*. PT Remaja Rosdakarya.
- Simanjuntak, B., & Pasaribu, L. (1990). *Building and developing the young generation*. Tarsito.
- Wicaksono, I., Supeno, S., & Budiarmo, A. S. (2020). Validity and practicality of the biotechnology series learning model to concept mastery and scientific creativity. *International Journal of Instruction*, 13(3), 157–170. <https://doi.org/10.29333/iji.2020.13311a>
- Yahya, Y., & Ridwan, R. (2023). *Learning & study vocational*.
- Zakiah, D. S., et al. (1992). *Educational sciences Islam (19th ed.) II*. Bumi Aksara.